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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Agami et al.

SERIAL NO.: 09/819,398

PATENT NO.: 6,879,623 B2

FILED: March 28, 2001

ISSUED: April 12, 2005

DOCKET NO.: CE08871R

ENTITLED: METHOD AND APPARATUS FOR TIMING RECOVERY IN A
COMMUNICATION DEVICE

Certificate of Mailing
Date of deposit: May 20, 2005
I hereby certify that this paper is being deposited with the United States Postal Service on the date indicated above, via First Class Mail with sufficient postage attached thereto, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
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REQUEST FOR A CERTIFICATE OF CORRECTION UNDER 37 CFR § 1.322

Commissioner for Patents
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Sir:

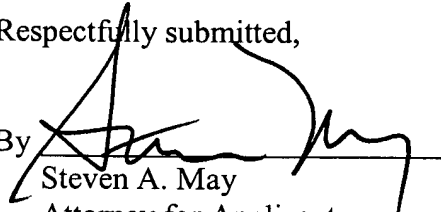
In accordance with the provisions of 37 CFR § 1.322 of the Rules of Practice, which implement 35 USC § 254, the Patent and Trademark Office is respectfully requested to issue a Certificate of Correction in the above-identified patent. It is certified that errors appear in the above-identified patent as shown in the attached Certificate of Correction. Applicant certifies that the errors are of a minor character and were not the fault of Applicant. Since the changes necessary to correct these errors in the patent would not constitute new matter, and would not require re-examination, Applicant prays a Certificate of Correction will issue. Since errors were not the fault of Applicant, it is believed that there will not be a fee for this Certificate of Correction.

JUN 01 2005

Motorola, Inc.
Customer No.: 22917

Respectfully submitted,

By

A handwritten signature in black ink, appearing to read "Steven A. May", is written over a horizontal line.

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.: 6,879,623 B2
DATE: April 12, 2005
INVENTOR(S): Agami et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 15, line 9, after "interpolated", insert --and sampled--

Column 15, line 16, after "interpolated", insert --and sampled--

Column 15, line 35, after "determining", insert --a value of--

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PATENT NO. 6,879,623 B2

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which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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interpolating the first interpolated signal based on a second plurality of predetermined filter coefficients to produce a second interpolated signal; and

wherein the step of sampling comprises a step of sampling the second interpolated signal based on a sampling rate to produce a plurality of sampled signals. 5

17. The method of claim 14, further comprising a step of despread each interpolated signal of the plurality of interpolated signals with a spectrum spreading code sequence to produce a plurality of despread signals and wherein the step of determining a timing error comprises a step of determining a timing error based on the plurality of despread signals. 10

18. The method of claim 14, further comprising a step of despread each interpolated signal of the plurality of interpolated signals with each of a spectrum spreading code sequence and an orthogonal code sequence to produce a plurality of despread signals and wherein the step of determining a timing error comprises a step of determining a timing error based on the plurality of despread signals. 15 20

19. The method of claim 18, wherein the step of determining a timing error comprises a step of determining an error signal based on the despread signals, and wherein the method further comprises steps of:

determining a timing adjustment signal based on the error signal; and

adjusting the sampling rate based on whether a value of the timing adjustment signal is positive or negative.

20. The method of claim 14, further comprising a step of determining a value of the at least one dynamically determined coefficient based on the determined timing error. 25 30

21. The method of claim 20, wherein the step of determining a timing error comprises determining an error signal based on the plurality of interpolated and sampled signals, and wherein the step of determining the at least one dynamically determined coefficient comprises steps of: 35

determining a timing adjustment signal based on the error signal;

determining a fractional part of the timing adjustment signal; and 40

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determining the least one dynamically determined coefficient based on the fractional part of the timing adjustment signal.

22. A communication device comprising:

a receiving unit capable of receiving a spread spectrum signal, demodulating the received spread spectrum signal to produce a baseband signal, and sampling the baseband digital signal to produce a baseband digitized signal; and

a signal processing unit coupled to the receiving unit and capable of interpolating the baseband digitized signal based on a plurality of predetermined coefficients to produce an interpolated signal, sampling the interpolated signal based on a sampling period to produce a plurality of sampled signals, interpolating each sampled signal of the plurality of sampled signals based on at least one dynamically determined interpolation coefficient to produce a plurality of output signals, determining a timing error based on at least two output signals of the plurality of output signals, and adjusting the sampling period based on the determined timing error.

23. The communication device of claim 22, wherein the signal processing unit further is capable despread each output signal with a spectrum spreading code sequence to produce a plurality of despread signals, and wherein the timing error is based on the plurality of despread signals.

24. The communication device of claim 22, wherein the signal processing unit further is capable of cross-correlating each output signal with each of a spectrum spreading code sequence and an orthogonal code sequence to produce plurality of despread signals, and wherein the timing error is based on the plurality of despread signals.

25. The communication device of claim 22, wherein a value of the at least one dynamically determined coefficient is based on the determined timing error.

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